#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/Ala Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-009259 Address: 333 Burma Road **Date Inspected:** 29-Sep-2009

City: Oakland, CA 94607

OSM Arrival Time: 1900 **Project Name:** SAS Superstructure **OSM Departure Time:** 700 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** See below **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component: Tower Components** 

## **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector George Goulet was present during the times noted above for observations relative to the work being performed.

## Bay 10

This QA inspector randomly observed the following work in progress in Bay 10:

SMAW welding of weld joint SSTL3-1J/K-51 located on PCMK south tower, lift 3, skin E, fit lug to stiffener at 116.67M diaphragm. Welder was identified as 040333. ZPMC QC was identified as CWI Li Ming (QC1). Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Wang Hao, who was not a CWI. The welding variables recorded by QC1 and QC1's assistant appeared to comply with WPS-345-SMAW-2G(2F)-repair.

FCAW welding of weld joint SSTL3-1I/K-53 located on south tower, lift 3, skin E to insert plate at bottom of diaphragm 109M. Welder was identified as 052075. ZPMC QC was identified as QC1. The welding variables recorded by QC1 appeared to comply with WPS-B-T-4333-TC-P4-F.

FCAW welding of weld joint SSTL3-1G/K-140 located on south tower, lift 3, skin A to insert plate at top of diaphragm 99M. Welder was identified as 050041. ZPMC QC was identified as QC1. The welding variables recorded by QC1 appeared to comply with WPS-B-T-4332-TC-P4-F.

FCAW welding of weld joint SSTL3-1G/K-54 located on south tower, lift 3, skin E to insert plate at bottom of diaphragm 99M. Welder was identified as 052266. ZPMC QC was identified as QC1. The welding variables

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recorded by QC1 appeared to comply with WPS-B-T-4333-TC-P4-F.

FCAW welding of weld joint SSTL3-1D/K-50 located on south tower, lift 3, skin E to insert plate at top of diaphragm 89M. Welder was identified as 054069. ZPMC QC was identified as QC1. The welding variables recorded by QC1 appeared to comply with WPS-B-T-4333-TC-P4-F.

FCAW welding of weld joint SSTL3-1C/K-54 located on south tower, lift 3, skin E to insert plate at bottom of diaphragm 89M. Welder was identified as 053116. ZPMC QC was identified as QC1. The welding variables recorded by QC1 appeared to comply with WPS-B-T-4333-TC-P4-F.

FCAW welding of weld joint NSTL3-3K/K-36 located on north tower, lift 3, diagonal stiffener butt weld between diaphragms 109M and 11.67M. Welder was identified as 053869. ZPMC QC was identified as CWI Tu Jun (QC2). The welding variables recorded by QC2 appeared to comply with WPS-B-T-2333-B-U2a-F-1.

FCAW welding of weld joint NSTL3-3K/K-32 located on north tower, lift 3, diagonal stiffener butt weld. Welder was identified as 040533. ZPMC QC was identified as QC2. The welding variables recorded by QC2 appeared to comply with WPS-B-T-2333-B-U2a-F-1.

### Bay 11

This QA inspector randomly observed the following work in progress in Bay 11:

SMAW tack welding of various runoff tab weld joints on ESD1-A65-P1267 located on PCMK east tower, skirt beam. Welder was identified as 203793. ZPMC QC was identified as CQI Liu Xiao Zhong (QC3). Assisting QC3 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Cao Cheng, who was not a CWI. The welding variables recorded by QC3 and QC3's assistant appeared to comply with WPS-B-P-2111 and WPS-B-P-2112. Also at this location and appearing to be monitoring the welding and recording data was ABF Representative Xie Yan.

FCAW welding of weld joint ESTL4-2B/L-36 located on PCMK east tower, lift 4, skin A to bottom of 116M diaphragm. Welder was identified as 040713. ZPMC QC was identified as QC3. The welding variables recorded by QC3 appeared to comply with WPS-B-T-2332-TC-P5-F.

FCAW welding of weld joint ESTL4-2B/L-30 located on PCMK east tower, lift 4, skin A to top of 116M diaphragm. Welder was identified as 070140. ZPMC QC was identified as QC3. The welding variables recorded by QC3 appeared to comply with WPS-B-T-2332-TC-P5-F.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

## **Summary of Conversations:**

No relevant conversations except as noted above.

### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Serge Sinevod, 134-8257-0045, who represents the Office of Structural Materials

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for your project.

**Inspected By:** Goulet,George Quality Assurance Inspector

**Reviewed By:** Carreon, Albert QA Reviewer